MENTAL HEALTH RESEARCH IN GHANA: A LITERATURE REVIEW

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Conflict of Interest: *None declared*

SUMMARY

Context/Background: Mental health is a neglected area in health care in Ghana. With few clinicians and trained researchers in the field, research has been limited both in quantity and quality.

Method: A search of the available literature revealed 98 articles published between 1955 and 2009. Sixty-six are reviewed in this paper.

Results: Topics covered included hospital and community-based prevalence studies, psychosis, depression, substance misuse, self-harm, and help-seeking. Much of the research was small in scale and thus largely speculative in its conclusions. Epidemiological data is scarce and unreliable and no large-scale studies have been published. There are very few studies of clinical practice in mental health.

Conclusions: The existing literature suggests several important areas for future research to inform the development of targeted and effective interventions in mental health care in Ghana.

Keywords: mental health, psychiatry, mental disorders, Ghana, research, epidemiology

INTRODUCTION

Psychiatry in Ghana is neglected in health care and research. In 1972 Adomakoh proclaimed in this journal 'There is a dearth of detailed knowledge of psychiatric illness in this country'.[1] Nearly 40 years later the research record has expanded, but accurate data on epidemiology, treatment and outcomes is still sorely needed. In the absence of reliable evidence, the gaps are filled by data extrapolated from international research, "guesstimates", and anecdotal evidence.

The first study of mental illness in the then Gold Coast was commissioned by the Colonial Office to study 'the forms of neurosis and psychosis among West Africans'. Four hundred cases of mental disorder were identified with the help of census enumerators and chiefs.[2] This was followed in the 1950s by ethnographic research of people with mental disorder attending rural shrines.[3] Following independence and the training of Ghanaian psychiatrists, local psychiatrists began to publish clinically-based research. However with limited resources and research expertise, the studies were small and output was limited. This situation has persisted until recently. The majority of research in mental health has been undertaken by the country's few psychiatrists, occasionally assisted by expatriate researchers or clinicians and has remained small in scale.

Recently a new impetus for mental health in Ghana has seen the establishment of mental health NGOs, the drafting of a new mental health bill, increased training for psychiatrists and psychiatric nurses, proposals for training new cadres of primary health care specialists in mental health, and increased media attention. There has also been an increase in the number of research projects and publications on mental health from a diversity of disciplines including psychology, sociology and anthropology.

The Kintampo Health Research Centre has supported studies of risk factors for psychosis, mental disorders among older people, an ethnography of psychosis,[4,5] and an epidemiology of postnatal depression. The *Mental Health and Poverty Project*, which conducted research on mental health policy in four African countries including Ghana,[6] has produced several publications in indexed journals.[7,8,9,10,11]

The PubMed indexing of the *African Journal of Psychiatry* and the online publication of the *Ghana Medical Journal* (GMJ) present new opportunities for mental health research in Ghana to provide a much-needed contribution to regional and international research on African mental health. This paper aims to provide an overview of the current state of research on mental health in Ghana, and a critical review of published research papers. The findings of these papers are synthesised to highlight priority areas for mental health research in Ghana which should be of value to both clinicians and researchers in the field.

METHODS

A literature search was conducted of social science and medical journals in Ghana and the UK. The authors conducted an on-line search of Pubmed using MeSH

terms '*psychiatry AND Ghana*', '*mental disorders AND Ghana*' '*mental health services AND Ghana*', '*mental health AND Ghana', 'self-injurious behaviour AND Ghana'*, in addition to a manual search of the libraries of Korle-Bu Teaching Hospital (KBTH), the Institute of Psychiatry, UK, and the London School of Hygiene and Tropical Medicine (LSHTM).

RESULTS

Ninety-nine articles published between 1955 and 2009 were identified. Thirty-three articles were excluded (see Table 1). Sixty-six were included in this review. Articles were grouped under the most relevant topics however there was overlap in some papers (see Table 2).

Table 1 Papers excluded from the review

Reason for exclusion	Number	Author/date
Unavailable	13	Addo-Kufuor and Osei 1993; Asare and Koranteng 1996; Lamptey 1980; Lamptey 1996; Lamptey 2001a; Lamptey 2000; Lamptey 2001b; Osei 2004; Turkson 1996; Turkson and Dua 1996; Danquah 1979; Lamptey 1981; Agbleze 1970
Opinion piece/obituary	6	Adomakoh 1972a; Asare 2001; Ewusi-Mensah 2001; Margetts 1972; Roberts 2001; Rosenberg 2002
Specialised case studies	3	Lamptey 1972; Turkson and Asamoah 1999; Turkson 1996
Obsolete treatment methods/diagnosis	3	Adomakoh 1973; Forster 1965; Johnson and Majodina 1979
Neuropsychiatric effects of physical conditions	2	Dugbartey, Dugbartey and Apedo 1998; Asare 1996
Specialist subfield – mental retardation, older people	3	de Graft-Johnson 1964; Turkson 1997; Walker 1982
Epilepsy	3	Adomakoh 1972b; Johnson 1980; Turkson 1990
Total	**33**	

Table 2 Reviewed papers by topic

Topic	Number	Author(s)/year
Psychiatric hospital studies	5	Adomakoh 1972; Forster 1966; Forster 1968; Lamptey 1977; Turkson and Asante 1997
General hospital studies	2	Lamptey 1978; Turkson 1998
Community studies	2	Field 1958; Osei 2003
Psychosis/schizophrenia	4	Field 1968; Fortes and Mayer 1966; Turkson 2000; Sikanartey and Eaton 1984
Depression	5	Dorahy et al 2000; Field 1955; Majodina and Johnson 1983; Osei 2001; Turkson and Dua 1996
Suicide and self-harm	5	Adomakoh 1975; Eshun 2000; Eshun 2003; Hjelmeland et al 2008; Roberts and Nkum 1989
Substance misuse/alcoholism	8	Affinnih 1999a; Affinnih 1999b; Akyeampong 1995; Amarquaye 1967; Lamptey 2005; Ofori-Akyeah and Lewis 1972; Redvers et al 2006; Turkson et al 1996
Women's mental health	5	Avotri and Walters 1999; Avotri and Walters 2001; Bennett et al 2004; Turkson 1992; Weobong et al 2009
Clinical picture/case studies	6	Forster 1970; Forster 1972a; Forster and Danquah 1977; Osei 2003; Turkson 1998
Psychopharmacy	3	Adomakoh 1972; Mensah and Yeboah 2003; Sanati 2009
Help-seeking/family response	6	Appiah-Poku et al 2004; Fosu 1981; Fosu 1995; Ofori-Atta and Linden 1995: Quinn 2007; Read et al 2009
Traditional healers	4	Brautigam and Osei 1979; Osei 2001; Twumasi 1972; Yeboah 1994
Mental health services and policy	7	Ferri et al 2004; Flisher et al 2007; Forster 1962a; Forster 1971; Laugharne and Burns 1999; Laugharne et al 2009; Osei 1993
Psychological interventions	1	Gilbert 2005
Review/history	2	Forster 1962b; Forster 1972b
Poverty	1	de-Graft Aikins and Ofori-Atta 2007
TOTAL	**66**	

Epidemiology

Early researchers and clinicians predicted an increase in mental disorders in Ghana as a result of the presumed stresses of industrialisation and 'acculturation'.[12,13] Yet to date the true prevalence of mental illness in Ghana remains uncertain. Epidemiological studies are based on small numbers and rely on clinical case-finding methods. Prevalence rates drawn from such data are below expected rates from international comparative studies and in the absence of data from population-based epidemiological studies are likely to be an underestimation.

Since psychiatric hospitals are the most easily accessible research sites, particularly for hard-pressed clinicians, a number of studies have been undertaken drawing on records at Accra Psychiatric Hospital (APH). In a study of first admissions to APH between 1951 and 1971 Forster observed a sharp increase in admissions from 265 in 1951 to 2284 in 1967 followed by a decline to 736 in 1971.[15] This change was attributed this to the political crisis between 1961-1966, however since then admissions approximate to the 1960s figure despite political stability and economic development in recent years. Hospital admissions are unreliable indicators of psychiatric morbidity since they are confounded by population growth and increased awareness and exclude many cases who do not attend psychiatric services.[14]

The few community-based prevalence studies do not employ standardised research diagnoses or epidemiological methods.[12,16,17,18] In Kumasi 194 participants were interviewed using the mental state examination (MSE) and the Self-Reporting Questionnaire (SRQ). Thirty-eight were diagnosed with depressive illness, of which 33 were women. Five women were diagnosed with schizophrenia and five men with somatisation disorder. Despite the limitations of the methodology, the author calculated an overall prevalence of psychiatric illness of 27.51%.[18] Noting the popularity of prayer camps and shrines in the treatment of mental disorders, Turkson suggests that epidemiological studies of mental illness in Ghana should include these.[19]

Schizophrenia/psychosis

In 1968 Field stated there had been an explosive increase in schizophrenia within the last 20 years (p.31).[20] However she had no data with which to substantiate such a claim. Her longitudinal study of hundreds of cases attending rural shrines in Ashanti and Brong Ahafo[12,20,21] provided a wealth of clinical and contextual detail however she did not quantify most of her work. In one exception she approached chiefs and elders of rural towns and villages and identified 41 cases of chronic schizophrenia in 12 villages with a combined population of 4,283. In the 1960s Fortes and Mayer, conducted a study of psychosis among the Tallensi in Northern Ghana. Mayer diagnosed 17 cases of psychosis, eight men and nine women.[17]

In the 1980s a study of the prevalence of schizophrenia in Labadi, Greater Accra using clinical interviews and a review of medical records identified 28 cases of schizophrenia including 19 males in a population of 45,195. Thirty-one vagrants were also found to be psychotic.[16] Methods were restricted to tracing cases from APH and Pantang Hospital, screening patients at the polyclinic, visiting a shrine and assessing 175 vagrants. No house-to-house case-finding was conducted.

Studies at APH consistently record schizophrenia and psychosis as the most commonly recorded diagnosis for about 70-75% of inpatients.[1,22] In the only identified study of mentally disordered offenders at APH, most had been diagnosed with psychotic illness including 31% with schizophrenia, 20.2% with drug-induced psychoses, and 13.3% with non-specified psychosis. Most of those charged with murder or attempted murder had been diagnosed with psychotic illness, nearly half (48.6%) with schizophrenia.[23]

The preponderance of schizophrenia as a diagnosis among inpatients continues to the present day. This is probably since only the most severe cases are admitted. The symptoms of acute psychosis also present grave difficulties for family members to manage at home, and are likely to prompt help-seeking. A Delphi consensus study of resource utilisation for neuropsychiatric disorders in developing countries, including Ghana, suggested that acute psychosis, manic episodes, and severe depression were the most common disorders treated within inpatient psychiatric care.[14]

Depression

Colonial psychiatrists asserted the virtual absence of depression among Africans, which was later challenged by Field among others. Field surmised that the self-accusations of women who confessed to witchcraft were akin to the self-reproach expressed by women with depression in Britain.[3,21] and that 'Depression is the commonest mental illness of Akan rural women' (p. 149).[3] Two studies of psychiatric morbidity in general hospitals and clinics suggest that more neurotic and affective disorders may be seen in these facilities than in the psychiatric hospitals although numbers are small.[24,25] In a survey of psychiatric morbidity at 6 polyclinics in Accra, of 172 patients, 27 were found to have psychiatric illness, with a further seven having physical illness with concomitant psychiatric illness.

Of these 23 (72%) were diagnosed with 'neurosis'.[24] Lamptey recorded no cases of depression, however it is possible these may have been missed due to the prominence of somatic symptoms such as palpitations, burning sensations and insomnia. In another study of 94 patients referred to a psychiatric out-patient clinic at KBTH the majority were diagnosed with affective (23) and neurotic/stress related disorders (11).[25]

To address the lack of cross-cultural data on depression in the early 1980s the World Health Organization sponsored a study utilising the Standardized Assessment for Depressive Disorders (SADD). Fifty patients were assessed using SADD, Thirty-three were female. Anxiety and tension were the core symptoms expressed, with 35% reporting feelings of guilt and self-reproach. Feelings of sadness and loss of interest and enjoyment were commonly reported. Forty reported somatic symptoms including headaches, bodily heat, and generalised body pain.[26]

The authors argue that there has been a change in the presentation of depression in Africa compared to earlier data. However, whilst the population of Ghana is more widely educated than in the 1950s, the study recruited a highly selective English-speaking sample who had already interpreted their symptoms in such as way as to approach psychiatric hospital. Indeed Turkson and Dua's study with a larger, less well-educated sample produced contrasting results. They studied 131 female outpatients with a diagnosis of depression using the Montgomery-Asberg Depressive Rating Scale (MADRS). They noted a high degree of somatic symptoms, in particular headaches (77.86%) and sleeplessness (68.7%). In contrast to the SADD study, there were fewer reported psychological symptoms such as pessimistic thoughts (20.61%) and sadness (12.97%). Only 10 (7.3%) reported suicidal thoughts.[27] However the MADRS has fewer psychological items than the SADD and therefore elicits different symptoms, highlighting one of the limitations of standardised instruments, particularly where they have not been validated with the local population.

Osei explored the incidence of depression among 17 self-confessed 'witches' at three shrines in the Ashanti region of Ghana. All were diagnosed with depression according to ICD-10. Three also had serious physical health problems. As in the previous studies, many described physical complaints such as a burning sensation or persistent headaches. The women also expressed ideas of guilt relating to having harmed someone in the family through the use of witchcraft.[28] Like Field, Osei suggests that guilt feelings arising from depression might prompt women to confess to witchcraft.

Such research raises interesting issues for the study of mental illness within the context of widespread belief in witchcraft and other supernatural phenomena in Ghana.

Turkson and Dua hypothesise on a link between socio-economic status and depression, however without a control group and with inadequate numbers they could provide little substantive evidence. A qualitative study of 75 women in the Volta region is highly suggestive of a link between social factors and psychological distress.[29-31] Whilst this study did not set out specifically to research mental disorders, almost three quarters of the women interviewed described 'thinking too much' or 'worrying too much'. Importantly, such symptoms were more prominent in women's accounts of their health than physical health problems.

Most participants complained of stresses arising from multiple responsibilities in the arenas of family and work, as well as financial hardship.[30] Headaches, bodily aches and pains, and sleep disturbance were commonly reported. A similar link between such experiences of poverty and possible symptoms of mental illness such as excessive thinking, worry and anxiety, as well as persistent physical symptoms such as headaches, has been made in a study of migrant squatters in Accra.[32] It is probable that some of these women may have met the criteria for a psychiatric diagnosis of depression.

The prominence of somatic symptoms among Ghanaian women diagnosed with depression is notable. Turkson notes that in 1988 32% of all new patients at APH presented with primarily somatic symptoms such as headaches, burning sensations, tiredness and bodily weakness with the majority diagnosed with anxiety, depression and somatisation disorders.[25] This highlights the importance of screening measures which have been locally validated and can identify somatic and non-somatic symptoms. A study of depression and life satisfaction among Nigerian, Australian, Northern Irish, Swazi and Ghanaian college students utilising the Beck Depression Inventory (BDI) for example, found that Ghanaians had significantly lower depression scores than other groups.[33]

Aside from sleeplessness and loss of appetite, the BDI items are mostly concerned with psychological aspects of depression such as worthlessness and guilt. In a study of the comparative validity of screening scales for post-natal common mental disorders Weobong provides evidence for the cross-cultural validity and reliability of a Twi version of the Patient Health Questionnaire (PHQ-9).[34]

Significantly the study showed that a mixture of somatic and cognitive symptoms best discriminated between cases and non-cases for all scales evaluated.

Given the high birth rate in Ghana, Weobong's study of post-natal depression will provide much-needed data on a condition which has been little researched. The only previous study identified described four cases of psychiatric disorders associated with childbirth treated at APH, including post-partum psychosis and manic-depressive psychosis. The author observed that few cases were referred to the psychiatric hospital and queried whether post-partum mental disorders were being recognised within antenatal wards. He also noted the influence of social factors such as marital problems and financial difficulties.[35]

The literature reveals that women are generally under-represented in psychiatric hospitals in Ghana. In Forster's study of APH inpatient admissions between 1951-1971 males consistently outnumbered females by about 3:1.[15] It has been suggested that when men become acutely mentally unwell they may be more difficult to manage at home, and so are more likely to be brought to the psychiatric hospitals for treatment.[16 18 36 37] Women in Ghana appear to be underserved by mental health services and the majority of women suffering from mental disorders, particularly depression, remain untreated or under the care of churches and shrines. Research at facilities such as polyclinics, shrines and churches may provide a more accurate picture of the numbers of women with mental disorders and their clinical presentation.

Suicide and self-harm

There is very little research on self-harm in Ghana. Roberts and Nkum examined the case notes of 53 patients admitted to Komfo Anokye Teaching Hospital (KATH) over a 5 year period.[38] The most common means of self-harm was ingestion of pesticides (22), and other harmful substances. 10 used 'physical methods' including self-stabbing (4). 6 cases were diagnosed with psychosis and 28 with acute reactions to social stresses such as marital and financial problems. The authors found an increase in deliberate self-harm during the five year period compared to an earlier study[39] from 0.3 cases per 1,000 admissions between 1965-1971 to 1.32 cases per 1,000 admissions in 1987. Based on their findings the authors estimated a crude annual incidence of 2.93 per 100,000. However this figure is likely to be an underestimate given that some cases may not reach medical services.

A number of studies comparing suicidal ideation among Ghanaian and Caucasian students in the USA showed significantly lower rates of self-reported suicidal ideation among the Ghanaian sample, as well as more negative attitudes towards suicide.[40 41] A larger survey compared 570 Ghanaian students with students from Uganda and Norway utilising the Attitudes Toward Suicide Questionnaire. Thirty (5.4%) of the Ghanaian sample reported making suicide attempts, significantly lower than either Uganda or Norway. Nine of the respondents reported a completed suicide in the family, and 91 among non-family members, again markedly lower than those reported by the Ugandan and Norwegian respondents.[42]

Though these studies seem to suggest a low rate of suicidal ideation in Ghana, generalisation is cautioned since all the studies were conducted with young, urbanised, highly-educated participants. There is also no published research on completed suicides in Ghana. It is possible that the lower reported rates of suicidal ideation or suicide attempts may in part reflect likelihood that Ghanaian students would be less likely to report suicidal ideation due to negative attitudes towards suicide. This is supported by the finding of Hjelmeland et al that 31% of their sample felt that suicide should not be talked about.[42]

However these studies also point to possible factors in Ghanaian society which could be employed in suicide prevention including family support, religious belief, and an emphasis on the value of the group. Qualitative studies related to beliefs and attitudes towards suicide, as well as risk factors, would greatly enhance the quantitative data and enable an exploration of some of the correlations observed.[41]There is one recent study on anorexia nervosa among female secondary school students in North East Ghana, a condition which has been considered rare in non-Western cultures.

The researchers completed a clinical examination of physical and mental health, two standard measures of eating behaviour and attitudes, and a depression screen. Of 666 students, 29 were pathologically underweight of which 10 were diagnosed with morbid self-starvation based on clinically significant indicators such as denial of hunger, self-punishment and perfectionist traits. The majority of the participants, both Christian and Muslim, reported regularly engaging in religious fasting. For the 10 engaged in morbid self-starvation, this fasting was particularly frequent, at least once a week, and associated with feelings of self-control and self-punishment. Since self-starvation was not associated with a desire to be thin or a morbid fear of fatness, a diagnosis of anorexia nervosa according to DSM-IV or ICD-10 criteria could not be made.

However the authors suggest that in Ghana fasting rather than dieting may provide the cultural context within which morbid self-starvation occurs.[43] As suggested by the role of somatic symptoms in the presentation of depression in Ghana, this study has important implications regarding the limitations of standardised psychiatric diagnoses and the need to recognise cultural influences on the presentation of mental illness.

Substance misuse

It is notable that the highest number of published papers in this review concerns substance abuse.[44,45,46,47,48,49,50,51,52,53] This may reflect more on the interests of researchers than the severity of the problem. In his sociological study Affinnih claims there has been an increase in the use of drugs such as cocaine and heroin in Accra and other urban centres.[45,46] However data from the psychiatric hospitals suggests that cannabis and alcohol are the most frequently used substances and may be a risk factor for the development of psychosis amongst young men.[23,25,54,53]

There is limited research on the mental health implications of substance use in Ghana. A study of substance abusers admitted to a private clinic in Accra excluded those with co-morbid mental illness.[49] Importantly only two papers were identified which were primarily concerned with alcohol misuse, one of which is a social history of alcohol use in Ghana.[44] The only epidemiological study of alcohol misuse was conducted with 350 psychiatric outpatients in Kumasi using the WHO Alcohol Use Disorders Identification Test (AUDIT).

The researchers found a prevalence of only 8.6% for hazardous drinking, significantly lower than comparable studies in the West.[53] The link between substance misuse and mental disorders may be exaggerated in the public imagination and the media and there is a tendency to make speculative assertions based on limited evidence. Affinnih for example quotes a minister of health as saying that 'drugs are responsible for 70% of the cases in local psychiatric hospitals' (p.397),[45] a figure which is not substantiated by hospital records. More research is needed in this area from a specifically mental health perspective.

Help-seeking

The popularity of traditional healers in the treatment of mental illness has been noted since the earliest studies of mental illness in Ghana and continues to the present day.[55] A study of 194 people attending three shrines in the Ashanti region stated that 100 (51.55%) of these were suffering from a mental illness, the majority (64 (32.99%)) with depression. Another 14 were diagnosed with somatisation, and 19 with psychotic illness, including 6 with schizophrenia, 4 with acute psychosis and 3 with cannabis-induced psychosis.[28 36]

Though data is limited, two papers suggest a change in the pattern of help-seeking over the last thirty years, with a greater role for Christian healers. In 1973 a study of 105 patients at APH diagnosed with psychosis showed that almost all (97(92%)) had sought another form of treatment before attending the psychiatric hospital. 67 (64%) patients had consulted a herbalist, 28 (26%) a healing church, and only 2 a fetish priest.[56]

A study in 2004 of the use of traditional healers and pastors by 303 new patients attending state and private psychiatric services in Kumasi found that a smaller proportion of patients had consulted other forms of treatment and a greater number reported consulting a pastor than a traditional healer (43 (14.2%) and 18 (5.9%) respectively). There also appeared to be more use of medical facilities in the treatment of mental illness. 14 patients had seen a family doctor and 6 had visited another psychiatric hospital. Nearly a quarter (24.4%) had previously attended one of the other mental health centres in Kumasi.[57]

Limited research has been conducted on beliefs and attitudes towards mental illness in Ghana which may influence help-seeking behaviour, though there is much speculation on the spiritual attribution of mental illness amongst the general population.[7] Two studies conducted in the early 1990s suggest a more varied and complex picture. A quantitative survey of 1000 women in Accra found that most (88%) said they would seek help from the psychiatric hospitals and only a minority (8.2%) said they would consult traditional healers.

The most important socio-demographic factors influencing the orientation towards help-seeking were area of residence, ethnicity, migration status, and prior use of medical services. Women who perceived the cause of psychosis to be natural or stress-related were more likely to seek help from mental hospitals than those who identified supernatural causation.[58] Similarly, a study of the effect of social change on causal beliefs of mental disorders and treatment preferences among teachers in Accra found that rather than emphasising spiritual causation for mental illness in Ghana, respondents attributed multiple causal factors to mental illness drawn from biological, social and spiritual models.

The authors attributed this in part to 'acculturation' but cautioned that participants may have wished to present themselves as educated and therefore have been less willing to disclose supernatural beliefs.

They also hypothesised that such beliefs may only come into play as an 'indirect attribution'.[59] In both studies participants were urban residents and most were educated. Using semi-structured interviews with 80 relatives of people with mental illness, and 10 service providers, Quinn explored beliefs about mental illness in Accra and Kumasi, and two rural areas in the Ashanti and Northern regions and how these influenced family responses to mental illness.

In line with the urban 'acculturation' thesis,[2,17] Quinn reported that in urban areas most respondents attributed mental illness to 'natural' causes such as work stress. In the Northern region however, spiritual attributions were more common. The Northern samples were also significantly less educated with 14 out of 19 respondents having no education. Caution should be exercised in generalising these results as the sample size in each area was small. There were also many 'don't knows' – 22 out of 80.[60] This may be a reflection of more complex aetiological beliefs and uncertainty around the cause of mental illness than reflected in a binary spiritual/natural schema, as earlier studies have suggested.[37,59]

Quinn's study claims that there was greater reliance on traditional healing in the North due to beliefs in a spiritual origin of mental illness; however it does not explore these issues in sufficient depth to support this assertion. The lower education of those in the Northern sample as well as their long distance from the psychiatric hospitals was other factors which may have influenced help-seeking. The study also reports that respondents in the Northern Region described greater acceptance of people with mental illness by families and communities with little evidence of stigma, echoing earlier reports.[2,17] Quinn's finding however is based on only 19 respondents, 17 of which were male. Since mothers are likely to provide most of the caring role they might have provided differing opinions on the impact of the illness.[60]

None of these studies allow for in-depth exploration of possible influences on help-seeking behaviour for mental illness. However they suggest some interesting hypotheses regarding the reputation of traditional healers in treating mental illness, the stigma attached to mental illness and psychiatric hospitals, and the scarcity of psychiatric services.

In common with other mental health researchers and professionals in Africa, these studies recommend collaboration with traditional and faith healers in the treatment of mental illness, such as training healers in recognising severe mental illness, and referring patients to psychiatric services. However traditional healers and pastors may be unwilling to pass on their customers to biomedical practitioners or admit to failings in their intervention. Claims for the efficacy of traditional healers also tend to be anecdotal and speculative and are seldom based on rigorous longitudinal data. Most authors highlight the role of traditional healers in addressing the psychosocial aspects of mental illness and their resonance with cultural beliefs.[37,56, 61,62,63]

Whilst some present a rather idealised picture,[61] others note the inhumane treatment of people with mental illness by traditional healers.[4,36,62] One paper points to the role of the family in caring for patients within traditional shrines and churches, and shows how this model was replicated within psychiatric facilities by enabling family members to stay with the patient in hospital.[64] Further research is needed on the practices of traditional and faith healers to inform interventions to address the maltreatment of people with mental illness, and ensure that those with mental illness receive the best quality treatment from both psychiatric facilities and informal services.

DISCUSSION

This review shows that mental health research in Ghana remains limited in both quantity and quality. In the absence of comprehensive research, much is assumed based on scant evidence, and services are heavily influenced by the results of research conducted elsewhere, most often in high-income settings. Whilst researchers have used their findings to argue for more resources for mental health, such pleas would be more forcefully made were there more accurate epidemiological data. It is difficult to estimate the true prevalence of mental disorder and plan effectively for mental health promotion and treatment without more rigorous, large-scale population-based studies. However the published research on mental disorders such as psychosis, depression, substance misuse and self-harm provides insights for future research on the cultural context of these disorders in Ghana, including risk factors, with important implications for clinical intervention and mental health promotion.

A major omission in the literature regards studies of the practice and efficacy of psychiatric treatment in Ghana. Given the scarcity of psychosocial interventions, psychotropic medication is the mainstay of treatment and has been the topic of four papers.[65,66,67] One study reports that adherence to medication is poor among many patients[68] suggesting the need for further research into the reasons for this, and methods by which to improve both access and adherence.

Most research in Ghana has been conducted by psychiatrists and there is very little published research

by psychologists, psychiatric nurses and social workers. The only published study identified on counselling argued for consideration of notions of self-identity, as well as the influence of the multi-lingual post-colonial environment when importing talking therapies,[69] a topic which would benefit from further research. Multidisciplinary research is also needed on the particular social and psychological factors which play an important part in the aetiology and course of mental disorders within Ghana and how these might be addressed.

Research on beliefs and attitudes towards mental illness suggests that these influence not only help-seeking behaviour but also stigma, care-giving and social inclusion. Research in this area may not only point to the roots of stigma, social exclusion and human rights abuse, but also to potential resources for the support and social integration of those with mental disorders. Most importantly research on mental health in Ghana needs to focus on experiences of the mentally ill and their caregivers. Existing research suggests a high social, financial and psychological burden for patients and carers,[4,30,31,60] and further research in this area could provide a powerful tool to argue for greater attention to mental illness as a neglected public health concern.

CONCLUSION

The studies reviewed have been small in scale and of limited generalizability. Nonetheless, they provide important insights into the development of mental health care in Ghana, and suggest directions for future research. Based on this review we suggest the following priorities for mental health research in Ghana:

- Population-based epidemiological studies of mental disorders – including attention to shrines and churches.
- Research on mental disorders, in particular psychosis, substance use, depression, somatisation, and self-harm including risk factors, clinical picture, course and outcome.
- Outcome studies of interventions within psychiatric services, primary care and other service providers e.g. NGOs
- Experiences of people with mental illness and their family members, including the psychosocial and financial impact, help-seeking and treatment experiences.
- The practices of traditional and religious healers and potential for collaboration.

Evidently these topics call for both quantitative and qualitative methodologies across disciplines in both medicine and social science. However an important caveat remains as to who will conduct this research given the pressures on clinicians and the limited research expertise. For too long mental health research has been dominated by experts in high-income countries with the consequent risk of cultural bias.

There remains a need for capacity building among clinicians across all disciplines to conduct clinically-based research, and for researchers trained in psychiatric epidemiological methods. Collaboration with mental health researchers in Africa and elsewhere, including the Ghanaian diaspora is one suggestion.[70] Above all high quality large-scale research requires funding. Given the burden of mental illness suggested by existing research in Ghana and elsewhere in the region, there is a strong case for international funding for mental health research to provide an evidence-based foundation for targeted and culturally relevant interventions.

REFERENCES

1. Adomakoh CC. Mental hospital patients: A Castle Road profile. *Ghana Med. J.* 1972;2:65-71.
2. Tooth G. Studies in Mental Illness in the Gold Coast. London: H.M.S.O., 1950.
3. Field MJ. Search for Security: An Ethno Psychiatric Study of Rural Ghana. London Faber and Faber 1960.
4. Read UM, Adiibokah E, Nyame S. Local suffering and the global discourse of mental health and human rights: An ethnographic study of responses to mental illness in rural Ghana. *Globalisation and Health* 2009;5(1):13.
5. Read UM. "I want the one that will heal me completely so it won't come back again": The limits of antipsychotic medication in rural Ghana. *Transcultural Psychiatry* forthcoming.
6. Flisher AJ, Lund C, Funk M, Banda M, Bhana A, Doku V, et al. Mental health policy development and implementation in four African countries. *J Health Psychol* 2007;12(3):505-16.
7. Ae-Ngibise K, Cooper S, Adiibokah E, Akpalu B, Lund C, Doku V. 'Whether you like it or not people with mental problems are going to go to them': A qualitative exploration into the widespread use of traditional and faith healers in the provision of mental health care in Ghana. International *Rev Psychiatry* 2010;22(6):558-67.
8. Akpalu B, Lund C, Doku V, Ofori-Atta A, Osei A, Ae-Ngibise K, et al. Scaling up community-based services and improving quality of care in the state psychiatric hospitals: the way forward for Ghana *African Journal of Psychiatry* 2010;13:109-15.
9. Awenva D, Read UM, Ofori-Attah AL, Doku VCK, Osei AO, Flisher AJ, et al. From mental health policy development in Ghana to

implementation: What are the barriers? *African Journal of Psychiatry* 2010;13:184-91.
10. Ofori-Atta A, Cooper S, Akpalu B, Osei A, Doku V, Lund C, et al Common understandings of women's mental illness in Ghana: Results from a qualitative study *International Review of Psychiatry* 2010;22(6):589-98.
11. Ofori-Atta A, Read UM, Lund C. A situation analysis of mental health services and legislation in Ghana: Challenges for transformation. *African Journal of Psychiatry* 2010;13(2):99-108.
12. Field MJ. Mental disorder in rural Ghana. *The Journal Of Mental Disease* 1958:1043-51.
13. Forster EB. Symptom formation in the African patient. *Ghana Med. J*. 1970:201-04.
14. Ferri C, Chisholm D, Van Ommeren M, Prince M. Resource utilisation for neuropsychiatric disorders in developing countries: a multinational Delphi consensus study. *Soc. Psychiatry Psychiatr. Epidemiol.* 2004;39(3):218-27.
15. Forster EB. Mental health and political change in Ghana 1951-1971. *Psychopathologie Africaine* 1972;8:383-471.
16. Sikanartey T, Eaton WW. Prevalence of schizophrenia in the Labadi District of Ghana. *Acta Psychiatrica Scandanavica* 1984;69(2):156-61.
17. Fortes M, Mayer DY. Psychosis and social change among the Tallensi of Northern Ghana. *Cahier D'Etudes Africaines* 1966;21:5-40.
18. Osei AO. Prevalence of psychiatric illness in an urban community in Ghana. *Ghana Med. J*. 2003;37(2):62-67.
19. Turkson SN. Schizophrenia--the spirit possessed 23 year old male from rural Kpando Dzoanti, Volta Region in Ghana: case report. *East Afr. Med. J*. 2000;77(11):629-30.
20. Field MJ. Chronic psychosis in rural Ghana. *Br. J. Psychiatry* 1968;114:31-33.
21. Field M. Witchcraft as a primitive interpretation of mental disorder. *Journal of Mental Science* 1955;101:826-33.
22. Forster EB. The Theory and Practice of Psychiatry in Ghana. *Am. J. Psychother*. 1962;16:7-51.
23. Turkson SN, Asante K. Psychiatric disorders among offender patients in the Accra Psychiatric Hospital. *West Afr. J. Med*. 1997;16(2):88-92.
24. Lamptey JJ. Psychiatric morbidity in Accra polyclinics. *Ghana Med. J.* 1978:170-76.
25. Turkson SN. Psychiatric diagnosis among referred patients in Ghana. *East Afr. Med. J.* 1998;75(6):336-8.
26. Majodina MZ, Johnson FY. Standardized assessment of depressive disorders (SADD) in Ghana. *Br. J. Psychiatry* 1983;143:442-6.
27. Turkson SN, Dua AN. A study of the social and clinical characteristics of depressive illness among Ghanaian women (1988-1992). *West Afr. J. Med.* 1996;15(2):85-90.
28. Osei AO. Witchcraft and depression: a study into the psychopathological features of alleged witches. *Ghana Med. J*. 2001;35(3):111-15.
29. Walters V, Avotri JY, Charles N. "Your heart is never free": Women in Wales and Ghana talking about distress. In: Stoppard JM, McMullen LM, editors. Situating Sadness: Women and Depression in Social Context. New York: New York University Press, 2003:183-206.
30. Avotri JY, Walters V. "You just look at our work and see if you have any freedom on earth": Ghanaian women's accounts of their work and their health. *Soc. Sci. Med*. 1999;48:1123-33.
31. Avotri JY, Walters V. "We women worry a lot about our husbands": Ghanaian women talking about their health and their relationships with men. *Journal of Gender Studies* 2001;10(2):197-211.
32. De-Graft Aikins A, Ofori-Atta AL. Homelessness and mental health in Ghana: Everyday experiences of Accra's migrant squatters. *J Health Psychol* 2007;12(5):761-78.
33. Dorahy MJ, Lewis CA, Schumaker JF, Akuamoah-Boateng R, Duze MC, Sibiya TE. Depression and life satisfaction among Australian, Ghanaian, Nigerian, Northern Irish, and Swazi university students *Journal of Social Behavior and Personality* 2000;15(4):569–80.
34. Weobong B, Akpalu B, Doku V, Owusu-Agyei S, Hurt L, Kirkwood B, et al. The comparative validity of screening scales for postnatal common mental disorder in Kintampo, Ghana. *J. Affect. Disord*. 2009;113(1-2):109-17.
35. Turkson SN. Psychiatric disorders associated with childbirth among Ghanaian women - illustrative cases. *Ghana Med. J*. 1992;26:467-70.
36. Osei AO. Types of psychiatric illness at traditional healing centres in Ghana. *Ghana Med. J*. 2001;35(3):106-10.
37. Jahoda G. Traditional healers and other institutions concerned with mental illness in Ghana. In: Ademuwagun Z, Ayoade JA, Harrison IE, Warren DM, editors. African Therapeutic Systems. Waltham: African Studies Association, 1979:98-109.
38. Roberts MA, Nkum BC. Deliberate self-harm in Ghana. *Ghana Med. J*. 1989;23(2):81-87.
39. Adomakoh CC. A preliminary report on attempted suicides seen in a general hospital in Ghana. *Ghana Med. J*. 1975;14:323-236.
40. Eshun S. Role of gender and rumination in suicide ideation: A comparison of college samples from Ghana and the United States *Cross-Cultural Research* 2000;34(3):250-63.

41. Eshun S. Sociocultural determinants of suicide ideation: a comparison between American and Ghanaian college samples. *Suicide and Life Threatening Behaviour* 2003;33(2):165-71.
42. Hjelmeland H, Akotia CS, Owens V, Knizek BL, Nordvik H, Schroeder R, et al. Self-reported suicidal behavior and attitudes toward suicide and suicide prevention among psychology students in Ghana, Uganda, and Norway. *Crisis* 2008;29(1):20-31.
43. Bennett D, Sharpe M, Freeman C, Carson A. Anorexia nervosa among female secondary school students in Ghana. *Br. J. Psychiatry* 2004;185:312-7.
44. Akyeampong E. Alcoholism in Ghana: A socio-cultural exploration. *Culture Medicine and Psychiatry* 1995;19(2):261-80.
45. Affinnih YH. A preliminary study of drug abuse and its mental health and health consequences among addicts in Greater Accra, Ghana. *J. Psychoactive Drugs* 1999;31(4):395-403.
46. Affinnih YH. Drug use in greater Accra, Ghana: pilot study. Subst. Use Misuse 1999;34(2):157-69.
47. Amarquaye FK. Indian hemp ingestion in Ghana. *Ghana Med. J*. 1967;6(6):126-30.
48. Danquah SA. Drug abuse among Ghanaian students. *Psychopathologie Africaine* 1979;15:201-11.
49. Lamptey JJ. Socio-demographic characteristics of substance abusers admitted to a private specialist clinic. *Ghana Med. J*. 2005;39(1):2-7.
50. Lamptey JJ. Are opioid addicts depressed? *Ghana Med. J*. 1996;31a:805-11.
51. Lamptey JJ. Social adjustment of a group of discharged substance abusers. *Ghana Med. J*. 2001;35:116-19.
52. Ofori-Akyeah J, Lewis RA. Drug abuse among Ghanaian medical students. *Ghana Med. J*. 1972:307.
53. Redvers A, Appiah-Poku J, Laugharne R. Alcohol misuse in psychiatric outpatients in Ghana. *Primary Care and Community Psychiatry* 2006;11:179-83.
54. Forster EBF. A longitudinal ecological study of one hundred consecutive admissions to the Accra Mental Hospital *Ghana Med. J*. 1966;5.
55. Laugharne R, Burns T. Mental health services in Kumasi, Ghana. *Psychiatric Bulletin* 1999;23(6):361-63.
56. Lamptey JJ. Patterns of Psychiatric Consultations at the Accra Psychiatric Hospital in Ghana. *African Journal of Psychiatry* 1977;3:123-27.
57. Appiah-Poku J, Laugharne R, Mensah E, Osei Y, Burns T. Previous help sought by patients presenting to mental health services in Kumasi, Ghana. *Soc. Psychiatry Psychiatr. Epidemiol*. 2004;39:208-11.
58. Fosu GB. Women's orientation towards help-seeking for mental disorders. *Soc. Sci. Med.* 1995;40(8):1029-40.
59. Ofori-Atta AML, Linden W. The effect of social change on causal beliefs of mental disorders and treatment preferences in Ghana *Soc. Sci. Med.* 1995;40(9):1231-42.
60. Quinn N. Beliefs and community responses to mental illness in Ghana: The experiences of family carers. *Int. J. Soc. Psychiatry* 2007;53(2):175-88.
61. Brautigam W, Osei Y. Psychosomatic Illness Concept Among the Akan of Ghana. *Canadian Journal of Psychiatry* 1979;24:451-57.
62. Roberts H. A way forward for mental health care in Ghana? *The Lancet* 2001;357:1859.
63. Ewusi-Mensah I. Post-colonial psychiatric care in Ghana. *Psychiatric Bulletin* 2001;25:228-29.
64. Osei Y. Family support for psychiatric patients. *World Health Forum* 1993;14(4):385-89.
65. Sanati A. Investigating the quality of psychotropic drug prescriptions at Accra Psychiatric Hospital. *International Psychiatry* 2009;6(3):69-70.
66. Adomakoh CC. Prevalence of motor disorders in Phenothiazine treated psychotics in mental hospital. *Ghana Med. J*. 1972:149-53.
67. Forster EB. A study of Thioridazine Hydrochiloride on chronic schizophrenics. *Ghana Med. J*. 1965:22-24.
68. Mensah ES, Yeboah FA. A preliminary study into the evaluation of drug compliance among psychiatric patients in Komfo Anokye Teaching Hospital, Ghana. *Ghana Med. J*. 2003;37(2):68-71.
69. Gilbert J. Cultural imperialism revisited: Counselling and globalisation *International Journal of Critical Psychology* 2006(Special Issue: Critical Psychology in Africa, 17):10-28.
70. Doku VCK, Mallett MR. Collaborating with developing countries in psychiatric research. *Br. J. Psychiatry* 2003;182(3):188-89.